

IN THE CLAIMS:

1. (Once Amended) An isolated antibody which specifically binds to DR4 polypeptide comprising amino acid residues 24 to 218 of Figure 1 (SEQ ID NO:1).
2. The antibody of Claim 1 which is an agonist antibody.
3. The antibody of Claim 1 which is a blocking antibody.
4. The antibody of Claim 1 which is a monoclonal antibody.
5. The antibody of Claim 1 which is a murine antibody.
6. The antibody of Claim 1 which is a humanized antibody.
7. The antibody of Claim 1 which is a chimeric antibody.
8. The antibody of Claim 1 which is a monomeric antibody.
9. The antibody of Claim 1 which is a multivalent antibody.
10. A hybridoma cell line which produces the antibody of Claim 4.
11. The antibody of Claim 4 having the same biological characteristics of (1) the monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12695; (2) the monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12694; or (3) the monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC PTA-99.
12. The antibody of Claim 4 wherein the antibody binds to the same epitope as (1) the epitope to which the monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12695 binds; (2) the epitope to which the monoclonal antibody produced by the hybridoma cell line deposited under the American Type Culture Collection Accession Number ATCC HB-12694 binds; or (3) the epitope to which the monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC PTA-99 binds.
13. The hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12695.
14. The hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12694.
15. The hybridoma cell line deposited under American Type Culture

Collection Accession Number ATCC PTA-99.

16. The monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12695.

17. The monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC HB-12694.

18. The monoclonal antibody produced by the hybridoma cell line deposited under American Type Culture Collection Accession Number ATCC PTA-99.

Please cancel claim 19 without prejudice.

20. A composition comprising the antibody of Claim 1 and a carrier.

21. The composition of claim 20 wherein said carrier is a pharmaceutically acceptable carrier.

*Sub 36* 23. (Once Amended) An article of manufacture, comprising a container and a composition contained within said container, wherein the composition includes the DR4 antibody of claim 1.

24. The article of manufacture of Claim 23 further comprising instructions for using the DR4 antibody *in vivo* or *ex vivo*.

33. An isolated antibody which binds to DR4 polypeptide comprising amino acid residues 24 to 218 of Figure 1 (SEQ ID NO:1) and which induces apoptosis in at least one type of mammalian cancer cell.

34. The antibody of Claim 33 which is a monoclonal antibody.

35. The antibody of Claim 33 which is a human antibody.

36. The antibody of Claim 33 which is a humanized antibody.

37. The antibody of Claim 33 which is a chimeric antibody.

38. The antibody of Claim 33 wherein said mammalian cancer cell expresses DR4 polypeptide.

39. The antibody of Claim 33 wherein said mammalian cancer cell is a lung cancer cell.

40. The antibody of Claim 33 wherein said mammalian cancer cell is a colon cancer cell.

41. The antibody of Claim 33 which is cross-linked to a homologous DR4

antibody.

42. An isolated antibody which binds to DR4 polypeptide comprising amino acid residues 24 to 218 of Figure 1 (SEQ ID NO:1) and which blocks binding of Apo-2 ligand to said DR4 polypeptide.

43. The antibody of Claim 42 which is a monoclonal antibody.

44. The antibody of Claim 42 which is a human antibody.

45. The antibody of Claim 42 which is a humanized antibody.

46. The antibody of Claim 42 which is a chimeric antibody.

47. An isolated antibody which binds to DR4 polypeptide comprising amino acid residues 24 to 218 of Figure 1 (SEQ ID NO:1) and which blocks Apo-2 ligand induced apoptosis in at least one type of mammalian cancer cell.

48. The antibody of Claim 47 which is a monoclonal antibody.

49. The antibody of Claim 47 which is a human antibody.

50. The antibody of Claim 47 which is a humanized antibody.

51. The antibody of Claim 47 which is a chimeric antibody.

52. The antibody of Claim 47 wherein said mammalian cancer cell expresses DR4 polypeptide.

53. The antibody of Claim 47 wherein said mammalian cancer cell is a lung cancer cell.

54. The antibody of Claim 47 wherein said mammalian cancer cell is a colon cancer cell.

55. The antibody of Claim 47 which is cross-linked to a homologous DR4 antibody.